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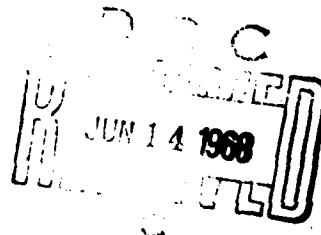
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6 June 1966

NOXIOUS INSECTS OF NORMAL FARM PRODUCTS: MULTI-
OUTBREAK OF "CICADULA SENOTATA" AND
NEPHOTETTIX APICALIS CINCTICEPS AND
MEASURES FOR ITS PREVENTION

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NOXIOUS INSECTS OF NORMAL FARM PRODUCTS: MULTI-
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APICALIS CINCTICEPS AND MEASURES FOR ITS
PREVENTION

[Following is a translation of an unsigned article in the Japanese-language publication [source unknown], pp 10-12.]

PREVENTING DISPERSION OF BROODED RICE BORERS

The rice crop of this year, which has suffered, from low temperature and concentrated heavy rainfall from the beginning, has completed heading and has entered the ripening period. Even from now on we would like to take every preventive measure possible against insects and blight and thus achieve as big a harvest as possible.

The second cycle of moth appearances of two-brooded rice borers is completed in the normal year by the early part of September. Because the first cycle was late this year, the growth period of the first generation larvae was prolonged due to rather low temperatures. Thus the second cycle seems to be delayed. At any rate, because the proper time for spraying chemicals to prevent the second generation is during a one week period beginning at the peak period of moth appearances, these chemical preventives measures are too late in September, unless it is in places where moth appearances are unusually late.

The second generation larvae start dispersion from the initially affected stems, beginning in the third week after the peak period of moth appearances. Because damaged stems increase in number with the dispersion of these larvae, it is important to prevent this dispersion. Although there are some instances of effectiveness through spraying phosphorous preparations during this dispersion period, this method cannot be recommended for general cases. Since the dispersion

of larvae becomes intensified if fields are dried, the draining of water from fields should not be hastened. Also dispersion becomes intense when there is no water in fields due to the destruction of water channels by storms, so care should be taken to repair destroyed points so as to not cut off water from the fields.

More Care Against Cicadula Senotata and
Nephotettix Apicalis Cincticeps

For the remainder of the year more care should be exercised against Cicadula Senotata and Nephotettix apicalis cincticeps. There have been many occurrences of sejiro [transliterated from Japanese] cicadula senotata, which have not occurred for the past several years, since July in the Kyushu, Chugoku, Shikoku, Tokai, Kinki, and Hokuriku Districts. There have also been occurrences of tobihiro [transliterated from Japanese] cicadula senotata since the early part of August in the Kyushu, Chugoku, and Hokuriku Districts.

In a year in which sejiro cicadula senotata frequently occur during summer, in many cases tobihiro cicadula senotata increase beginning with the early part of autumn. Tobihiro cicadula senotata originally prefer lower temperatures than sejiro cicadula senotata. The weather forecast says that summer will be short this year and autumn will set in earlier. These climatic conditions are suitable for tobihiro cicadula senotata.

The occurrence of tobihiro cicadula senotata is wide spread over fields in vales and forests where it is shady, low in temperature even during the day and where irrigation water is cold running water. Special care should be given to such places this year.

Cicadula senotata occur in the center of fields. Therefore, their occurrence should be investigated by going to the center of fields. At this time, attention should be given to the existence of not only adults and larvae, but also to eggs.

If the spraying of chemicals for the prevention of the second generation two-brooded rice borers has been carried out well, tobihiro cicadula senotata may not be observed by the early part of September. In such a case, another investigation is desirable during the autumn equinox period. Attention should be given to the occurrence of these cicadula senotata until about two weeks before the harvest. For the

prevention and control of these cicadula senotata, organic chlorine preparations (DDT, BHC), organic phosphorous preparations (parathion, EPN, Bizid [sic] Smithion [sic] malathion, and acid) and Carbamate [sic] are used. These cicadula senotata have a strong tendency to live gregariously on the roots of rice. Therefore, it is important to spray the roots well. At this stage, it is necessary to go into fields and spray properly.

September is also the time when the density of tsumaguro [transliterated from Japanese] nephotettix apicalis cincticeps is the highest during the year. There may not be an overall too large growth this year, but there may be a large growth in some areas. Beginning now they may assemble in fields where late maturing species are grown and cause damage. One must be careful until the period of latex maturing, and for the damage caused up to that time sini [sic] is used. When BHC preparations are used for the prevention and control of two-brooded rice borers, one should be careful about the movement of tsumaguro nephotettix apicalis cincticeps. If their movement is large, they can be prevented and controlled by organic phosphorous preparations (parathion, EPN, dianzinon [sic], bizid [sic], acid, kilbal [sic], and malathion).

In some areas the killing power of parathion (especially methyl parathion) is not as effective as expected due to their resistance. For this reason, in the past two or three years some areas in Southern Kyushu and Shikoku had noticeable white ears. White ears are apt to grow in the case of late-planted rice after the cultivation of tobacco. The spraying of chemicals (30-50% in the case of white ears) is suitable at the heading period, either once during this period, or twice at a week's interval before and after this period. The spraying of parathion, EPN or bizid [sic] is recommendable.

Recently there have been some occurrences of cirphis unipuncta in autumn. They cause damage at first to leaves, but later to ears. In the usual year the damage is intensified beginning in the autumn equinox period. Before their larvae grow too large, they should be controlled by EPN, DDT, and BHC.

Noxious Insects of Potatoes

In the case of potatoes, tubercles become large and fat including such green caterpillars as Nakajiro shitaba [transliterated from Japanese], Hasumo Yoto [transliterated from

Japanese], and Herse canvolvuli. They devour leaves and sometimes leave potato fields bare without a single leaf. These caterpillars at first eat up leaves and make small holes in them. At this stage, without any loss of time they should be controlled. When the insects grow big, chemicals are not too effective. This is so especially in the case of ebigarasu [transliterated from Japanese]. For these caterpillars such organic chlorine preparations as DDT (5% powder, emulsion 500 times), endrin [sic] (powder or emulsion), and such organic phosphorous preparations as EPN (powder or emulsion 1,000 times), diptelex (emulsion 500 times, aqueous solution 800 times) are used. An old chemical, dead arsenate (250 times), is effective, especially for mature larvae.

Prevention and Control of Soy bean Shield Bugs in Warm Areas

Late growing soy beans form shells at this time in warm areas. The falling of shells during this period must be prevented. Even if shells do not fall, seeds may not be formed.

Shield bug damage to soy beans come from roadsides, waste lands, or sesame fields. Special care should be taken in fields close to them.

When shells begin to form, it is recommended that an emulsion of such phosphorous preparations as parathion, EPN, bizid [sic], smithion [sic], or their powders, or BHC (powder 3%), be sprayed twice a week or at ten day intervals.

- END -